



NEWSLETTER of the Wisconsin Entomological Society

Volume 4 Number 3

James W. Mertins, Editor

October, 1976

EDITOR'S NOTES

Despite the encouraging start to the collecting season which I mentioned in my last column in May, the promise of a good season for entomologists has, in general, gone unfulfilled. Heat, and especially drought, such as we had this summer have not been experienced in Wisconsin for at least 40 years. The insect populations that had it so easy last winter and an early start last spring were at least decimated by mid-summer. The last few weeks in my jaunts through woods and fields, I have been amazed by the remarkable absence of the normal insect inhabitants of late summer - especially the Lepidoptera. The only things that seem to be present in large numbers everywhere are bees, hornets, yellowjackets, and other wasps.

At least the weather was mostly ideal for being in the out-of-doors all summer, but it seems not to have stimulated my hoped for contributions to the NEWSLETTER about experiences from members. Nevertheless, I think this issue has much of interest to the reader, as there are several other types of contributions. How about some more? The annual national meetings of the Lepidopterists' Society and Xerces Society were held as scheduled in Madison, and were resounding successes. Due to their timing, however, which corresponded to the week we normally hold our Society collecting trip to Bill Sieker's farm, there was only the sugaring trip in August to report on this year. However, some members did participate in a semi-organized collecting expedition to the UW Arboretum in Madison set up for the Lepidopterists' Society members. I have no reports yet on how it went.

Finally, I should correct an error made in the last NEWSLETTER regarding Prof. John Medler's distinction as the first sustaining member of WES. In point of fact, he is the third to so aid the Society. The first was Bill Sieker in 1968, and the second, Randy Powers, in 1971. My apologies, and our thanks to all of these contributors.

NOTICES

Wanted. Collecting data (identification, locality, date) for specimens of sphinx moths collected in Wisconsin. Information to be used in a soon to be completed publication on the "Sphingidae of Wisconsin". Send to Bill Sieker, 2633 Stevens St., Madison, WI 53705.

Wanted. Collecting data and/or specimens of tortoise beetles (Chrysomelidae: Cassidinae), especially those taken in Wisconsin. Trading material is available. Contact John or Carolyn Baker, Insectarium, Dept. of Entomology, Univ. of Wis., Madison, WI 53706.

The NEWSLETTER of the Wisconsin Entomological Society is published two to four times yearly at irregular intervals. Please send all news, notes, contributions, and other items for the NEWSLETTER to the Editor, Department of Entomology, University of Wisconsin, Madison, Wisconsin 53706.

NOTICES (cont.)

For sale. 11 glass top U.S.N.M.-type insect pinning drawers. These are old, but in good condition and will accommodate insects. A cabinet could easily be built to accommodate the set. \$5 each or best offer. Contact Eric Erickson, 21 Burning Wood St., Madison, WI (tel. 249-3404).

Wanted. Uropodid mites associated with ant and termite nests in North America. Please contact William Phillipsen, Dept. of Entomology, UW, Madison 53706.

Wanted. Records for all Wisconsin Aegeriidae (clear-winged moths) with information on county, host-plant, etc. if possible. Will accept any specimens you don't want, or have some lesser peach tree borers (male and female), Synanthedon pictipes, for trade. Clyde S. Gorsuch, Dept. of Entomology, Univ. of Wis., Madison, WI 53706.

For sale. Very large selection of foreign exotic insects, especially butterflies, moths, and beetles. Many large showy species. I have taken over the business of the late Mr. George Schirmer and will welcome any inquiries or correspondence. I will also consider trades for certain species. Please contact Dan Capps, 231 Powers Ave., Madison, WI 53714 (tel. 249-7271 evenings).

Wanted to trade. Native of exotic foreign beetles; have numerous perfect mounted Catocala moths (mostly duplicates) for exchange. John Hempel, 1516 Sherman, Janesville, Wis. 53545.

Wanted. Records by county for all Wisconsin Rhopalocera, Sphingidae, Saturniidae, and Catocala. For more details write Roger Kuehn, 5042 N. 61 St., Milwaukee, Wis. 53218.

NEWS OF MEMBERS

(Please submit items of interest about yourself or other members for this column.)

We received word over the summer that Barb Campana, past Secretary of WES, has moved again with her husband to New Mexico. And none too soon; Barb is expecting a baby in late November.

Prof. John Medler is preparing to go to Indonesia as Director of a new 5-year AID program, and will leave in mid-December for an initial 2½ year appointment.

Dr. Michael Klein recently received quite a bit of national publicity for his involvement in the identification of the sex pheromone of the Japanese beetle. Most newspapers and many radio and TV stations across at least the eastern US carried reports of the discovery, and Mick reports he and his colleagues almost needed a press secretary to take care of the interest shown.

Prof. Gene DeFoliart was awarded the 1976 ESA-North Central Branch Award of Merit at the annual awards banquet in Denver last March for his work on transovarial arbovirus transmission in mosquitoes.

Dan Capps, intrepid collector and dealer in exotic insects, reports that his latest trip to the subtropics was less than successful in the specimen department. Last summer he went to Guantánamo Naval Base on the island of Cuba to visit a nephew, and

NEWS OF MEMBERS (cont.)

also to collect. Unfortunately, the habitat on the base could perhaps best be described as a pesticide-treated desert, and not only were very few insects seen, even fewer were collected.

Dr. Michael Karandinos earned tenure in the UW Department of Entomology as of last July 1.

Prof. G. M. Boush has been officially appointed as Chairman of the UW Department of Entomology.

Prof. Roy D. Shenefelt has retired from daily duties in the UW Department of Entomology. He is now Emeritus Professor of Entomology, and is still actively pursuing his work on world Braconidae at home, with occasional forays back to Russell Labs.

Paul Kotila passed his preliminary oral exam on the way to a Ph.D. in entomology at UW on August 27. Congratulations Paul!

New Members

Charles Behnke Rt. 2 Box 152, Dodgeville, WI 53533
Wayne Duesterbeck 2015 2nd St., Eau Claire, WI 54701
Richard Schroeder 28 Gaslite Sq. Apt. 5, Madison, WI 53713
Joseph Sonza-Novera 4913 Chalet Gardens Rd. #210, Madison, WI 53711

Changes of Address

Barb Campana 3916-D Ortiz Ct. NE, Albuquerque, NM 87110
Leslie Lyons Canada Dept. of Environment, Great Lakes Forest Research Centre,
Box 490, Sault Ste. Marie, Ontario, Canada
Richard P. Narf 3911 Fish Hatchery Rd., Madison, WI 53711
Randy R. Powers 10519 W. Donna Dr., Milwaukee, WI 53224

Lost Member

Does anybody know the whereabouts of the following, whose correspondence keeps coming back? (Last address given.)

John Masters.....P.O. Box 66872, Scott's Valley, CA 95066

Member Résumés

New member Charles Behnke wasted no time in attending his first Society meeting only five days after joining WES. He is, by trade, a photographer, and his interests in entomology run along those lines. I've seen some of his insect photographic work, and it is very ,very good.

NEWS OF MEMBERS (cont.)

New member Wayne Duesterbeck indicates a primary interest in collecting Lepidoptera.

In renewing his membership, Dr. Les Lyons tells us of his continued interests in life history, biology, behavior, and population dynamics of Neodiprion sawflies.

Another new member, Richard Schroeder, is a student and bartender, and has a particular interest in collecting aquatic insects.

Still another new insect photographer for WES, Joseph Sonza-Novera is a graduate student in Madison and also is concerned with general insect collecting, taxonomy, and biology.

HISTORY OF WISCONSIN ENTOMOLOGY - X

(In this installment we begin to recognize a number of names familiar to us as current members of WES.)

When H. F. Wilson stepped down as Chairman in 1942, the Department of Entomology came under the direction of its third Chairman, Professor C. L. Fluke. Prof. Fluke joined the staff of the department in July, 1916, with a newly earned B. S. degree from Colorado Agricultural College. He soon distinguished himself as a fine teacher, and some years later won an award as the best instructor on the College of Agriculture campus. Continuing his education himself, he earned a M. S. in 1918 and the Ph.D. in 1928 from UW-Madison with his thesis on "The Known Predaceous and Parasitic Enemies of the Pea Aphid, Illinoia pisi (Kalt.) in North America with Special Reference to Syrphidae."

Fluke's specialty was taxonomy and ecology of the Syrphidae, or flower flies, and he became a world-renowned authority on this important family, publishing many technical papers on them. Recognition of his expertise came in 1956 with the appearance of a "Catalogue of the Family Syrphidae in the Neotropical Region - Part I" under his name. Fluke described 154 new syrphid species and was awarded a Sigma Xi grant to visit and study at the Ohio State collection, the US National Museum in Washington, DC, American Museum of Natural History in New York, The Boston Society of Natural History, and the Canadian National Museum in Ottawa. Over his 42 years of service to the University, Prof. Fluke published many papers on his other research interests which were strongly oriented toward fruit insects, and included work on the pea aphid, cabbage, radish and apple maggots, cherry casebearer, potato flea beetle, raspberry borer, codling moth, and apple curculio.

Personnel prior to Prof. Fluke's retirement included: Profs. C. L. Fluke, T. C. Allen, H. F. Wilson; Assoc. Profs. J. H. Lilly, C. L. Farrar (USDA); Assist. Profs. E. H. Fisher, J. T. Medler ($\frac{1}{2}$ Agronomy), and R. J. Dicke. Extension activities in the department were handled part-time by Harry Chada, who dealt with vegetable insects. The first full-time extension specialist, Dr. E. H. Fisher, was appointed in February, 1946. A former student of T. C. Allen's, Dr. Fisher worked for a time at Stokely Foods, Inc., after completing his graduate work. Very soon after his arrival in Madison, Dr. Fisher helped Prof. Fluke to organize the first conference of the Wisconsin Pest Control Operators held in February, 1946. Chairman Fluke also brought Dr. John T. Medler to the department from the University of Minnesota as a joint appointee shared with the Department of Agronomy, and funded by University President E. B. Fred with funds from the Wisconsin Alumni Research Foundation. Prof. Farrar was assisted by a well-trained staff at this time, including W. Stephen, E. Bielinski, F. Moeller, and W. C. Roberts. The white grub laboratory was manned by Chamberlin and Seaton, and

HISTORY OF WISCONSIN ENTOMOLOGY - X (cont.)

entomologists at the Wisconsin Department of Agriculture were Chambers, A. Pillar, and Phil Smith. Though student enrolment during Fluke's administration was unstable due to comings and mostly goings as men entered the armed services, a few of the names may be familiar: R. K. Chapman, Richard Dobson, H. C. Coppel, William Hull, Phil Stone, and others.

The department now occupied several additional rooms in King Hall, particularly in the basement, and in the dairy barns. The first indication of new facilities came in 1945, when the University Building Committee requested funds to construct several buildings, including one on the site of the old entomology location.

Prof. Fluke became quite ill and slowly weakened, and was forced to retire in 1946 after serving for four years and 2½ months as Chairman. In July, 1958, he was awarded the status of Emeritus Professor. Prof. Fluke died February 11, 1959. With the exception of the holotypes, his entire fine collection of syrphids was deposited in the UW Insectarium, where it remains today, as does his reprint collection, now available in the C. L. Fluke Reference Room.

Winged Treasure of the Sierra Madre

by Herb Grimek

A very interesting article concerning the discovery of the overwintering locale of the eastern monarch appeared in the August, 1976 issue of the National Geographic. The article contains some spectacular photographs, as well as fascinating information.

It has been known for some time that the western populations of the monarch butterfly overwinter on the Monterey Peninsula of California. The much larger eastern population, however, always seemed to vanish into thin air south of the Mexican border.

Dr. Fred A Urquhart, a Canadian zoologist, and his wife, Norah, have been trying to solve the riddle of this butterfly's disappearance since 1937. With the help of many volunteers of the Insect Migration Association, which was formed by Dr. Urquhart in 1952, large numbers of monarchs were tagged. As tagged butterflies were returned, it became increasingly clear that the overwintering place was somewhere in Mexico.

An ad placed in a Mexican newspaper by Norah Urquhart in 1972 resulted in the help of Kenneth C. Brugger of Mexico City. Ken Brugger systematically searched likely areas of the Mexican countryside until, on January 9, 1975, he was able to give Dr. Urquhart the exciting news that the long sought hiding place had been found.

The elderly Dr. Urquhart was finally able to make the trip for which he had waited nearly 40 years during January, 1976. The sight that awaited him in Mexico's Sierra Madre was truly spectacular. Many millions of monarchs covered more than 1000 large trees. The insects covered the trees so densely that limbs sometimes broke under their weight. This remote area of the Sierra Madre north of Mexico City is an ideal site for the butterfly's hibernation. The 9000 foot elevation results in winter temperatures which hover near freezing. The constant cold temperatures keep the monarchs from using up the stored fat needed for their return flight north.

Hopefully, the Mexican government will take steps to set this area aside as a sanctuary as soon as possible. It would indeed be tragic if the population of this colorful insect were decimated due to some careless or wanton act.

WISCONSIN INSECT NOTES (etc.)

With our very dry summer, and the resultant lack of mosquitoes, we may discover that some of our wildflowers are in for a hard time. According to the National Wildlife Federation, Lewis Nielson of the University of Utah is collecting evidence to

WISCONSIN INSECT NOTES (cont.)

prove that if it weren't for those often pesky creatures, some of our most beautiful wildflowers would vanish. While the females feed on us, the males are out working the flowers for nectar like bees. Nielson is attempting to show that mosquitoes do carry pollen from flower to flower, and successfully pollinate some tiny flowers that bees ignore, such as forget-me-nots.

Former WES member, James R. Neidhoefer, has given his entire world renowned collection of Lepidoptera to the Milwaukee Public Museum. The approximately 150,000 specimens from all over the world are conservatively valued at \$150,000. In August, the Friends of the Museum entertained Mr. Neidhoefer at a dinner to honor his gift, which is being housed in a special new room in the invertebrate zoology section of the museum. The room also provides a desk and study space for Jim, who is a Research Associate and Honorary Curator of Entomology at the MPM.

Over the years Mr. Neidhoefer has been instrumental in getting several large and important local collections of Lepidoptera for deposit in the museum, including the Moeck and Shirmer collections (both former members of MES). The current contribution incorporates several other collections acquired by Mr. Neidhoefer, and is still being retained in the fine original custom-made cases and drawers where it resided at Jim's home in Menomonee Falls.

The collection has two centerpiece subcollections. One, which completes a contribution begun earlier, includes the largest and finest collection of gynandromorphic Lepidoptera in the world. These so-called "genetic accidents" are specimens which show characters associated with both male and female specimens in a single insect, and are quite spectacular. Neidhoefer estimates such occurrences at anything from one in 50,000 to one in a million. The collection includes more than 1000 gynandromorphs compared with less than 300 in the British Museum, generally considered to have the finest collection of Lepidoptera in the world. The second subcollection is one of the finest series of birdwing butterflies (Ornithoptera) in the world, and the only collection in the USA to include all of the known species.

Finally, to top it all off, Mr. Neidhoefer has also donated his entire worldwide library of Lepidoptera literature to the museum. Many of the volumes included are as beautiful and rare as the insects they describe.

Shortly after the last NEWSLETTER in May we learned that a number of State and Federal agencies and private organizations were cooperating to distribute some 6000 gypsy moth pheromone traps throughout the State of Wisconsin. The results are now pretty much complete, and are not encouraging. This year, as of September 10, a total of 11 male moths were trapped in the State, compared to three last year in Appleton. Nine males were caught in 1976 in the Outagamie County section of Appleton, and one in the Calumet County section of that city. The eleventh male came to a pheromone trap in an oak tree in Dane County east of Madison at Blooming Grove.

In contrast to the gypsy moth situation, news of the Japanese beetle trapping program was all good. For the first time in several years, no specimens were caught anywhere in the State, including Kenosha where five were taken in 1975.

This past summer a new concept (at least in the USA) in zoos come into being at the Smithsonian Institutions in Washington, DC. At the U.S. National Museum of Natural History a special room was opened as an insect zoo in conjunction with the August convening of the International Congress of Entomology in that city. I understand from several who attended the Congress and saw the zoo that it is a most worthwhile effort. The zoo has two curators whose main jobs are to keep the inhabitants healthy, well-fed,

WISCONSIN INSECT NOTES (cont.)

and cleanly. Their charges include many interesting forms "doing their own thing." There are dung beetles rolling balls of manure, burying beetles burrowing under dead mice, leaf-cutter ants chomping flower petals and carting them off, a hive of honeybees, tarantulas, butterflies, moths and caterpillars, large lubber grasshoppers, hissing cockroaches, and unicorn beetles.

The Cincinnati (Ohio) zoo is not far behind. Presently under construction, and scheduled for a spring (1977) opening is a 6400 square foot subterranean insect building. "Big game" hunters for the nation's second insect zoo recently travelled to Panama in search of exotic inhabitants for their new facility. The list of species planned for exhibit sounds very similar to those on display at the Smithsonian.

In early May, the first insects made the endangered species list of the U.S. Fish and Wildlife Service. The El Segundo Blue, Philotes battoides, and five other species of California butterflies made the list, and will hopefully benefit therefrom. Like many other plants and animals along the scenic California coast, P. battoides, is threatened by uncontrolled development of their restricted habitats by human interlopers. The blue's population at El Segundo is now limited to a few acres at the west end of the airport, and any further development of the area would no doubt drive the insect into extinction.

Butterflies are Free (They Say)

by Paul M. Kotila

All butterflies are free, they say;
they flit, and flut, and fly away,
On gentle wind or quiet air.
Can any blossom flash so fair?

The practiced eye finds names to call,
of monarch, copper, admiral.
All well enough, yet some do fuss;
"But of course -- Papilio glaucus!" *

In earnest quest, with quickened hand,
the lep-i-dop-ter-ist does plan,
To capture one soft pastel tone,
and make this nature's joy his own.

But flitting still across the sky,
to passers of and passers by;
A nameless bright, in summer sun,
begs moments pause from anyone.

*Tiger Swallowtail

Although there are surely others, I am aware of two new state records taken recently, both in Madison. A tortoise beetle, Physonota helianthi Ran., was collected on May 14, 1976, and an encyrtid parasitoid of brownbanded cockroach eggs, Comperia merceti (Compere), was taken by former WES President Ralph Howard in the University Houses, March 18, 1975.

WISCONSIN INSECT NOTES (cont.)

Herb Grimek brought attention to an article in a recent issue of the National Enquirer about a California gentleman, Ken Gidney, who has what must be close to a unique entomological-type job. The 54-year-old Gidney hunts and picks California harvesting ants, which he sells to Uncle Milton Industries, manufacturers of ant farms. The Culver City, California, firm buys its ants exclusively from Mr. Gidney, and at the rate of a penny apiece, every anthill he finds is a potential minor gold mine. One estimate has it that since the early 1950's when he began, Gidney has earned \$1.4 million. Modern technology has displaced the crude early collection method of poking a straw into anthills and scraping ants that clung to it into a coffee can. Now equipped with ten special vacuum devices to suck out the tunnel-digging ants by the thousands, Gidney says, "I go out two, three days a week, pick ants for half a day, and then go fishing." Many times he makes \$3000.00 a week, and at the Christmas peak of business, can boost that to \$5000.00. In case you haven't seen them, each ant farm is essentially a half-inch layer of sand sealed between two rectangular sheets of clear plastic -- and a free supply of 25 of Gidney's ants!

PUBLICATIONS OF INTEREST

Butterflies in My Stomach (or Insects in Human Nutrition) by Ronald L. Taylor (1975). Woodbridge Press Inc. Price- \$8.95. Urges us to thoughtfully consider using the vast and prolific insect populations to ease the world's protein shortage. Includes instructions, recipes, proposals, illustrations, and nutritional tables.

Wellso, S. G., G. V. Manley, and J. A. Jackman. 1976. Keys and notes on the Buprestidae (Coleoptera) of Michigan. Great Lakes Entomologist 9: 1-22. Because of the geographic proximity of Michigan and Wisconsin, this should have considerable utility in both states. Includes information on 116 species and 1 subspecies and a description of a new species.

I recently noticed that a good basic manual on collecting insects for the beginning and/or young entomologist is still available. How to Collect and Preserve Insects by H. H. Ross is a 71 page booklet published by the Illinois State Natural History Survey, and one copy is available free to any interested person on request by writing to the Chief, Illinois Natural History Survey, Urbana, IL 61801, and asking for Circular 39. Though some parts of the information are a bit outdated, the overall product is still useful and informative. Advice is provided on where to collect, how to make and use simple equipment, how to handle, mount, preserve, label, and house specimens, and on how to identify specimens, with a synopsis of Illinois insect orders and their relatives.

PROGRAM NOTES

FERRY BLUFF COLLECTING TRIP - AUGUST 14, 1976

The day dawned cloudy and stormy, one of the very few such all summer. The threatening weather was certainly a factor in keeping attendance down, but as it turned out, by late afternoon, the conditions at Ferry Bluff were very pleasant indeed and a fine night for collecting followed. Unlike last year, not a mosquito was there to trouble the collector. Seven members and guests attended, and a good time was had by all, if you don't count the run-in that the Martin boys had with a nest of hornets! The date of the event was several weeks later in the season than previous years, and as a consequence some of the species taken were different than those taken normally. The

PROGRAM NOTES: FERRY BLUFF (cont.)

cardinal flowers along the river bottom were beautiful and in full bloom, with frequent visits by hummingbirds observed. We attracted one deer mouse to our sugar bait solution this year, and a little brown bat was surprised by the Editor under some loose bark while searching for beetles there. The following list will give an idea of what we found this year.

Species list

Orthoptera:	Blattidae	- <u>Parcoblatta</u> sp.
Hemiptera:	Tettigoniidae	- <u>Ceuthophilus</u> sp.
Neuroptera:	Coreidae	- <u>Acanthocephala terminale</u> (nymph)
Coleoptera:	Myrmeliontidae	- (larvae obs.)
	Carabidae	- <u>Carabus serrata</u>
		- <u>Galerita janus</u>
Lepidoptera:	Tenebrionidae	- <u>Alobates pennsylvanica</u>
	Scarabaeidae	- <u>Osmoderma eremicola</u> (dead adult)
	Noctuidae	- <u>Catocala cara</u>
		- <u>C. cerogama</u>
		- <u>C. concumbens</u>
		- <u>C. reecta</u>
Hymenoptera:	Formicidae	- <u>Camponotus pennsylvanica</u> (queen)

Arachnida: large wolf spider, and many large daddylonglegs (obs.)

1976 LEPIDOPTERISTS' SOCIETY ANNUAL MEETING

sponsored by WES and the UW Department of Entomology

The 27th annual meeting of the Lepidopterists' Society held in Madison last July 25 - 28 in conjunction with the 3rd annual meeting of the Xerces Society was a great success due largely to the efforts of WES members Walt Gojmerac and Bill Sieker, who took care of all the local arrangements, and contributions by many other Society members. Although I have no official report, a few personal observations on the sessions I was able to attend may be of interest to those who couldn't come.

A list I saw contained the names of some 52 officially registered participants, but I'm sure dozens more were in attendance at times. Besides many local people, there were literally representatives from Maine to California, and Florida to Colorado. The meeting facilities in the Wisconsin Center were superb, and attendees were greeted by an original painting by butterfly artist, William H. Howe in the lobby. Although many excellent papers were presented, I think few would argue that the highlight of the meeting was the last paper by J. Oppenwall, "From the Gold Rush to the Hollywood Rushes: Alchemy and Entomology in California: Some Notes on the History of Butterfly Farming." Other successful events were the film by Ken MacArthur, "Excursion into the Tropics," an illustrated caterpillar identification quiz by Jim Mertins and John Baker, and the banquet presentation by George Archibald on the International Crane Foundation.

PLEASE NOTE !

Members will find enclosed a copy of the WES advertising brochure and invitation to membership. PLEASE put it to good use and share it with a friend who might be interested in joining. WES needs new members to help us avoid a threatening dues increase. More pamphlets are available on request.

WISCONSIN ENTOMOLOGICAL SOCIETY
MEMBERSHIP APPLICATION

Please Print:

Last Name	First Name			
Address:	Street	City	State	Zip
Organization represented (if any)				
Title or Occupation				
Phone: (Include area code)				
<input type="checkbox"/> Individual membership (\$2.00 per year) <input type="checkbox"/> Organization membership (\$10.00 per year) <input type="checkbox"/> Sustaining membership (\$25.00 or more per year)				

General Interest Area

Aquatic Insects Collecting and/or Taxonomy
 4-H or Scout Member Insect Photography
 Extension Worker Physiology
 Life History, Biology, & Behavior Apiculture
 Other Pest Control
 Specify

Specific Interests (Order, Family, Genus)

If you are an authority for certain insect taxa, would you be willing to identify Wisconsin specimens for members? Yes No

Make checks payable to Wisconsin Entomological Society and mail to the Treasurer, William Hilsenhoff, Dept. of Entomology, 237 Russell Labs., U. Wis., Madison, Wisc. 53706.